Remarks

The Applicants have amended Claim 15 to change the second heated roll surface roughness of 1.5S - 8S to 3.2S - 6.3S. Support may be found in Claim 21. Claim 21 has accordingly been cancelled.

Claim 15 has further been amended to recite that the second heated roll surface roughness has an R_{max} of 3-6.3 µm. Support may be found in the Applicants' specification such as on page 14 at lines 24-29, wherein a broad R_{max} range is disclosed and Example 1 on page 19 at line 32, wherein a specific R_{max} of 3 µm is also disclosed.

Entry of the above amendments and cancellation into the official file is respectfully requested.

All of the claims stand rejected over a combination of Rowan, Toshio, Palmer, Matsuo and Negishi with Fujimoto. The Applicants respectfully submit that one skilled in the art would hardly be expected to combine six separate references to cobble together individual bits and pieces from so many publications in any way that would reasonably result in the Applicants' claimed subject matter. Nonetheless, assuming *arguendo* that such a combination would or even could be made, the result of such a combination would lead those skilled in the art away from the claimed subject matter.

The rejection frankly acknowledges that Fujimoto fails to disclose the second heated roll used for the relaxation treatment having a surface roughness of 1.5S - 8S. The Applicants agree. It therefore inherently follows that Fujimoto fails to disclose the Applicants' claimed 3.2 - 6.3S surface roughness. Fujimoto also fails to disclose, teach or suggest the Applicants' claimed R_{max} of 3 - 6.3 µm. The rejection turns to Rowan to cure the deficiency with respect to the surface roughness. However, the rejection also acknowledges that Rowan does not explicitly teach that R_{max} of the Ra is within the claimed range of 1.5S - 8S. The Applicants agree. It therefore inherently

follows that Rowan does not teach that the R_{max} of the Ra is within the claimed range of 3.2 - 6.3S and inherently follows that it does not teach an R_{max} of 3 - 6.3 μm. Hence, on its face, Rowan fails to cure the deficiencies set forth above with respect to Fujimoto.

Nonetheless, the rejection recites that Rowan recognizes that R_{max} is a result-effective variable and that one skilled in the art would have been motivated to determine the optimum R_{max} applied in the process of Rowan through routine experimentation to achieve a smooth surface.

This is important because, assuming *arguendo*, the validity of this approach, the fact that one skilled in the art would have been motivated to determine the optimum R_{max} through routine experimentation upon minimizing the variation in Ra to achieve a smooth surface would actually cause one skilled in the art to be led away from the Applicants' claimed subject matter. In that regard, the Applicants agree that it is the intention of Rowan to achieve a smooth surface as well as to fix the drawing point and, as a consequence, obtain a high level of mechanical quality. As noted in the rejection, Rowan discusses the utilization of a relaxation rate of 1 - 10%, which means that Rowan did not have the intention to have a rough surface, wherein the surface roughness of the second heated roll is in the Applicants' claimed range of 3.2S - 6.3S to prevent reverse winding.

This is essentially the opposite teaching of the Applicants, wherein they seek to have a second heated roll that has a rough surface which prevents reverse winding when the relaxation rate is high, such as up to 20%.

Thus, the Applicants respectfully submit that the teachings of Rowan and the Applicants' objectives as reflected in their claimed second heated roll surface roughness of 3.2S - 6.3S and R_{max} of 3 - 6.3 μm are opposite from each other. Rowan seeks to have a smooth surface as acknowledged in the rejection while the Applicants seek to have a rough surface. This is again reflected by Rowan's teachings in col. 4, at lines 5 and 6, that the yarn relaxes 1-10% between rolls 5 and 7. This

is sharply contrasted to the Applicants' objective of having a high relaxation rate which ranges up to 20%. The Rowan objective is achieved with a smooth surface while the Applicants' objective is achieved with a rough surface.

As a consequence, the Applicants' claimed second heated roll surface roughness of 3.2 - 6.3S and 3 - 6.3 μm is inherently outside of the ranges taught by Rowan. Moreover, one skilled in the art would not be motivated to make modifications to Rowan that would result in increasing the roughness since Rowan teaches the objective of achieving a smooth surface.

Additionally, Rowan is quite clear about the essence of the Rowan invention which culminates in Claim 1 in the final paragraph as "the improvement comprising" which is directed to the roll surface roughness value of between about 35 microinches and about 120 microinches. Given that the "essence" of Rowan is directed to having a smooth surface and fixing the drawpoint, one skilled in the art would have no motivation to modify those teachings because such a modification would destroy that essence of Rowan.

As a consequence, the Applicants respectfully submit that there are multiple compelling reasons why the combination of Rowan with Fujimoto is problematic. In that regard, Rowan leads those skilled in the art away from the Applicants' claimed second heated roll surface roughness. It is well known that references teaching away from the claimed subject matter is classic evidence of nonobviousness. Further, obviousness requires motivation to modify references and a reasonable expectation of success in so doing. Rowan (combined with Fujimoto) provides no such motivation and no such reasonable expectation of success. Since the "essence" of Rowan is directed to achieving a smooth surface (as opposed to the Applicants' rough surface), one skilled in the art would not be motivated to modify the critical inventive point of Rowan with a reasonable expectation of success. In fact, the Applicants respectfully submit that those skilled in the art would

have a reasonable expectation of something less than success when taking a critical point of an invention from a patent and making modifications to that critical point. Again, this is classic evidence of nonobviousness.

This means that even if one skilled in the art were to combine Rowan, Toshio, Matsuo and Negishi with Fujimoto, the resulting methodology would lead one skilled in the art away from the subject matter of the Applicants' claims. As a consequence, the combination is inapplicable. Withdrawal of the rejection is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,

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